What is Claimed Is:

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A method comprising:

detecting network nodes on the network by a network manager;

selecting by the network manager a size of address fields to be used for switching data packets traversing the network, based on a number of the detected network nodes;

configuring by the network manager each network switch of the network to switch each of the data packets based on a corresponding switching tag, added to a start of the corresponding data packet and having the selected size.

- The method of claim 1, wherein the configuring step includes sending a management datagram to each network switch, the management datagram specifying that switching is to be based on the switching tag, and the selected size of the switching tag.
- The method of claim 3, wherein detecting step and configuring step each include accessing the network according to InfiniBand™ network protocol.
 - 4. The method of claim 3, further comprising:

receiving by a first of the network switches an $InfiniBand^{TM}$ packet having a destination local identifier (DLID) specifying a destination node on the network;

adding by the first network switch a new switching tag to the start of the $InfiniBand^{TM}$ packet and having the selected size, and specifying the destination node based on the DLID; and

switching the InfiniBandTM packet having the new switching tag to a second of the network switches based on the switching tag.

The method of claim 4, further comprising:

receiving the InfiniBand™ packet including the new switching tag by the second network switch; and

selectively removing, by the second network switch, the new switching tag from the

InfiniBandTM packet based on whether the new switching tag specifies a destination node reachable by
the second network switch; and

selectively outputting the InfiniBandTM packet, following removal of the new switching tag, .to the destination node based on the destination node being reachable by the second network switch.

- 6. The method of claim 5, further comprising selectively outputting, by the second network switch, the InfiniBand™ packet including the new switching tag to a third of the network switches based on a determined unreachability of the destination node by the second network switch.
 - A network manager comprising: .

an explorer resource configured for detecting network nodes on the network; and

- a controller configured for selecting a size of address fields to be used for switching data packets traversing the network, based on a number of the detected network nodes, the controller configuring each network switch of the network to switch each of the data packets based on a corresponding switching tag, added to a start of the corresponding data packet and having the selected size.
- 8. The network manager of claim 7, wherein the network manager is configured for sending a management datagram to each network switch, the management datagram specifying that switching is to be based on the switching tag, and the selected size of the switching tag.
- The network manager of claim 6, wherein the explorer resource and the controller each are configured for accessing the network according to InfiniBandTM network protocol.
 - A network within a server system, the network comprising:
 - a plurality of network switches configured for switching data packets; and
- a network manager configured for detecting network nodes, including the network switches, within the prescribed subnetwork, the network manager configured for selecting a size of address fields to be used for switching the data packets, based on a number of the detected network nodes, the network manager configured for configuring the network switches to switch each of the data packets based on a corresponding switching tag added to a start of the corresponding data packet and having the selected size, each network switch switching a received data packet based on the corresponding switching tag.
 - The network of claim 11, wherein the size corresponds to a selected number of bits.

- The network of claim 11, wherein each network switch is configured for generating address table entries based on the selected size.
- The network of claim 11, wherein the at least one network switch and the network nodes are configured for communication according to InfiniBandTM network protocol.
- 14. The network of claim 11, wherein each network switch is configured for adding a new switching tag to the start of an InfiniBandTM packet received from a network node and having a destination local identifier (DLID) specifying a destination node on the network, the new switching tag specifying the destination node based on the DLID and having the selected size.
- 15. The network of claim 14, wherein each network switch is configured for selectively removing the new switching tag from the InfiniBand™ packet based on whether the new switching tag specifies a destination node reachable by the corresponding network switch.